

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Atty JRL-2789-62

Dkt.

C# M#

Fabio VERONI

TC/A.U.

2836

Serial No. 10/553,168

Examiner: Roman, Luis E.

Filed: January 3, 2006

Date: June 11, 2008

Title: ELECTRIC CIRCUIT BREAKER



Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

RESPONSE

This is a response/amendment/letter in the above-identified application and includes an attachment which is hereby incorporated by reference and the signature below serves as the signature to the attachment in the absence of any other signature thereon.

☐ **Correspondence Address Indication Form Attached.**

Fees are attached as calculated below:

Total effective claims after amendment	26	minus highest number	
previously paid for	26	(at least 20) =	0 x \$50.00 \$0.00 (1202)/\$0.00 (2202) \$

Independent claims after amendment	1	minus highest number	
previously paid for	3	(at least 3) =	0 x \$210.00 \$0.00 (1201)/\$0.00 (2201) \$

If proper multiple dependent claims now added for first time, (ignore improper); add
\$370.00 (1203)/\$185.00 (2203) \$

Petition is hereby made to extend the current due date so as to cover the filing date of this
paper and attachment(s)

One Month Extension	\$120.00 (1251)/\$60.00 (2251)
Two Month Extensions	\$460.00 (1252)/\$230.00 (2252)
Three Month Extensions	\$1050.00 (1253)/\$525.00 (2253)
Four Month Extensions	\$1640.00 (1254)/\$820.00 (2254)
Five Month Extensions	\$2,230.00 (1255)/\$1115.00 (2255) \$

Terminal disclaimer enclosed, add \$130.00 (1814)/ \$65.00 (2814) \$

☐ Applicant claims "small entity" status. ☐ Statement filed herewith

Rule 56 Information Disclosure Statement Filing Fee	\$180.00 (1806)	\$	0.00
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Assignment Recording Fee	\$40.00 (8021)	\$	0.00
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Other:		\$	0.00
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TOTAL FEE \$ 0.00

☐ **CREDIT CARD PAYMENT FORM ATTACHED.**

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140. A duplicate copy of this sheet is attached.

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NIXON & VANDERHYE P.C.
By Atty: John R. Lastova, Reg. No. 33,149

Signature: _____



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Fabio VERONI

Atty. Ref.: 2789-62; Confirmation No. 7759

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For: ELECTRIC CIRCUIT BREAKER

* * * * *

June 11, 2008

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P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REQUEST FOR RECONSIDERATION

Responsive to the Official Action dated March 13, 2008, Applicant respectfully requests reconsideration.

Applicants note with appreciation the indication of allowable subject matter in claims 12-14. For the reasons explained below, all claims should be allowed.

Claims 1, 9-11, and 17-19 stand rejected as being unpatentable under 35 U.S.C. §103 based on newly cited Fowler (it is assumed the Examiner meant US 5,710,691 rather than the patent number included in the official action corresponding to Leone). This rejection is respectfully traversed.

Fowler teaches a modular programmable control unit for protecting an appliance connected to a household power source. See Figure 4. The modular programmable control unit has a socket for plugging a household appliance therein. The modular programmable control

unit is plugged into a household power socket and allows a user to pre-select maximum threshold values of time and/or energy via a front panel 150. If the time period and/or energy consumption of an appliance connected to the unit exceeds pre-selected values, a microprocessor in the programmable control unit opens a relay so as to cease current flow to the appliance.

Fowler fails to disclose or suggest all the features recited in claim 1. First, Fowler does not relate to an electric circuit breaker but rather to a programmable control unit that is plugged into a household power socket, as can be seen in Figure 4. Second, Fowler's programmable control unit lacks a receiver for receiving a programmable current threshold, contrary to what is recited in claim 1. There is no teaching or suggestion in Fowler of program the thresholds through a receiver. In fact, adding a receiver contradicts the approach taken in Fowler which allows a user to program power and/or energy levels using a front panel 150 on the unit. Third, and as admitted by the Examiner, Fowler lacks the claimed second current detector.

The Examiner argues that it would have been obvious to include two detectors instead of one in Fowler: one for current and the other one for thermal consideration during a period of time. In support, the Examiner cites a 1960 CCPA case for the proposition that the mere duplication of a part of a device is not patentable. The law of obviousness has evolved over the last nearly 50 years. But more importantly, the claimed second current detector is not a mere duplication of the claimed first current detector. The first current detector in claim 1 detects a current level in the electrical circuit, and that detected current level is then compared by the claimed processor to a current threshold. The circuit breaking switch is tripped if the detected current exceeds the current threshold. The second current detector causes the switch to break the electric circuit if the current exceeds a predetermined rated current for more than a specified duration. One detector might be used to protect against currents that exceed a maximum current

corresponding to the current threshold, and the other might protect against a sustained high current that may not necessarily exceed the current threshold. The second current detector causes the switch to break the electric circuit without intervention required by the processor in case a predetermined rated current is exceeded for more than a specified duration. Thus, it is clear the two claimed detectors are not merely duplicated working parts of an electric circuit breaker.

The programmable controller in Fowler drives a relay. If the control circuit in Fowler fails, the relay will simply not open. There is no mechanism or incentive in Fowler to provide a second detector that can cause the relay switch to open the electric circuit. In contrast, the claimed circuit breaker uses a second current detector for a purpose simply not contemplated by Fowler. If the claimed receiver (an element missing in Fowler) of the circuit breaker incorrectly receives a programmable current threshold that is higher than the threshold current desired/intended, then the processor will not trip the breaker switch when the lower desired threshold current is encountered. To guard against this problem, a second detector is provided that causes the switch to break the circuit—without intervention by the processor—when a predetermined current is exceeded for more than a specified duration. This safeguard protects against operator/human error, the consequences of which can be quite dangerous and costly.

The courts have long found that the problem confronted by the inventors must be considered in an obviousness inquiry. See, e.g., *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 935 (Fed. Cir. 1990); *In re Spinnoble*, 405 F.2d 578, 585 (CCPA 1969) ("[A] patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified. This is part of the 'subject matter as a whole' which should always be considered in determining the obviousness of an invention

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under 35 U.S.C. § 103."). Here, Fowler simply does not recognize this problem which provides further evidence that the rejection based on Fowler should be withdrawn.

None of the supplemental references relied on by the Examiner were cited to show the multiple claim features missing in Fowler. The application is in condition for allowance. An early notice to that effect is respectfully requested.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____



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